

wafers with treatment liquids in baths, comprising the steps of

firstly treating the semiconductor wafers in a bath with an aqueous HF solution only containing HF and optionally HCl and optionally a surfactant;

then treating the semiconductor wafers in a bath with an aqueous O_3 solution only containing O_3 ; and

then treating the semiconductor wafers in a bath with an aqueous HCl solution only containing HCl;

whereby these treatment steps form a treatment sequence B₂, which avoids the addition of fresh water or other liquids to the treatment baths.

11. (Amended) A process for the wet chemical treatment of semiconductor wafers with treatment liquids in baths, comprising the steps of

firstly treating the semiconductor wafers in a bath with an aqueous HF solution only containing HF and optionally HCl and optionally a surfactant;